HP ProLiant Data Protection Storage Server user guide

This guide provides overview and setup information for the HP ProLiant Data Protection Storage Server (DP Storage Server). This guide supplements information about the Microsoft® System Center Data Protection Manager (DPM) software available from Microsoft Corporation.

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HP ProLiant Data Protection Storage Server user guide

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About this guide

This guide provides overview and startup information for the following HP ProLiant Data Protection Storage Server (DP Storage Server) models:

- HP ProLiant DL100 G2 1TB Data Protection Storage Server
- HP ProLiant DL100 G2 3TB Data Protection Storage Server
- HP ProLiant DL100 G2 6TB Data Protection Storage Server
- HP ProLiant ML310 G3 1TB Data Protection Storage Server
- HP ProLiant DL380 G4 9TB Data Protection Storage Server

In addition to being printed and included in your product kit, this guide is also provided as a printable document (PDF) on the *HP ProLiant Data Protection Manager Storage Server documentation CD*.

IMPORTANT:

This guide supplements information about Microsoft® System Center Data Protection Manager (DPM) software, which is preinstalled on your DP Storage Server. To access the DPM home page, go to the Microsoft web site at http://www.microsoft.com and search for *Microsoft Data Protection Manager*.

Intended audience

This book is intended for use by technical professionals who are experienced with the following:

- Microsoft administrative procedures
- System and storage configurations

Related documentation

In addition to this guide, HP provides the following additional information related to this product:

- *HP ProLiant DL100 G2 Data Protection Storage Server installation instructions*
- *HP ProLiant ML310 G3 Data Protection Storage Server installation instructions*

- *HP ProLiant DL380 G4 Data Protection Storage Server installation instructions*
- *HP ProLiant Data Protection Storage Server expansion guide*
- *HP ProLiant Storage Server user guide*
- *HP ProLiant Storage Server administration guide*
- *HP ProLiant Storage Server release notes*

User documentation for the DPM software can be accessed at the Microsoft web site at: http://www.microsoft.com. Search for *Microsoft Data Protection Manager*. DPM documentation includes the following:

- DPM FAQ
- DPM Help
- *DPM Planning and Deployment Guide* (also shipped on the DP Storage Server documentation CD)
- *DPM Operations Guide*

Document conventions and symbols

Conventions and symbols consist of the following:

- Document conventions, page 10
- Text symbols, page 11
- Equipment symbols, page 12

Document conventions

This document uses the following conventions:

Table 1 Document conventions

Convention	Element
Blue text	Cross-reference links
Bold	Menu items, buttons, and key, tab, and box names
Italics	Text emphasis and document titles in body text
`Monospace font`	User input, commands, code, file and directory names, and system responses (output and messages)
`Monospace, italic font`	Command-line and code variables
Blue underlined text (http://www.hp.com)	Web site addresses

Text symbols

The following symbols may be found in the text of this guide. They have the following meanings:

WARNING!

Text set off in this manner indicates that failure to follow directions in the warning could result in bodily harm or death.

CAUTION:

Text set off in this manner indicates that failure to follow directions could result in damage to equipment or data.

NOTE:

Text set off in this manner presents commentary, sidelights, or interesting points of information.

Equipment symbols

The following equipment symbols may be found on hardware for which this guide pertains.

⚠ **WARNING!**

Any enclosed surface or area of the equipment marked with these symbols indicates the presence of electrical shock hazards. Enclosed area contains no operator serviceable parts. *WARNING: To reduce the risk of personal injury from electrical shock hazards, do not open this enclosure.*

⚠ **WARNING!**

Any RJ-45 receptacle marked with these symbols indicates a network interface connection. *WARNING: To reduce the risk of electrical shock, fire, or damage to the equipment, do not plug telephone or telecommunications connectors into this receptacle.*

⚠ **WARNING!**

Any surface or area of the equipment marked with these symbols indicates the presence of a hot surface or hot component. Contact with this surface could result in injury. *WARNING: To reduce the risk of personal injury from a hot component, allow the surface to cool before touching.*

⚠ **WARNING!**

Power supplies or systems marked with these symbols indicate the presence of multiple sources of power. *WARNING: To reduce the risk of personal injury from electrical shock, remove all power cords to completely disconnect power from the power supplies and systems.*

⚠ WARNING!

Any product or assembly marked with these symbols indicates that the component exceeds the recommended weight for one individual to handle safely. *WARNING: To reduce the risk of personal injury or damage to the equipment, observe local occupational health and safety requirements and guidelines for manually handling material.*

Getting help

If you still have a question after reading this guide, contact an HP authorized service provider or access our web site: http://www.hp.com.

NOTE:

Known issues and workarounds for the storage server products and the service release are addressed in release notes. To view the latest version, visit http://www.hp.com/go/support. Select **See support and troubleshooting** information and enter a product name/number. Under **self-help resources**, select the **manuals (guides, supplements, addendums, etc)** link.

HP technical support

Telephone numbers for worldwide technical support are listed on the following HP web site: http://www.hp.com/support. From this web site, select the country of origin.

NOTE:

For continuous quality improvement, calls may be recorded or monitored.

Be sure to have the following information available before calling:

- Technical support registration number (if applicable)
- Product serial numbers
- Product model names and numbers
- Applicable error messages
- Operating system type and revision level
- Detailed, specific questions

HP hardware support services

HP Instant Support Enterprise Edition (ISEE) provides proactive remote monitoring, diagnostics, and troubleshooting to help you enhance the availability of your servers, as well as storage and network devices. The ISEE software is located on the storage server in the `c:\hpnas\components\ISEE folder`. For more information, go to the HP web site: http://h20219.www2.hp.com/services/cache/10707-0-0-225-121.aspx.

HP Services provides service tools that notify you when a significant system event has or will occur. These tools, WEBES System Event Analyzer (SEA) and OSEM, are used both as part of the ISEE remote service offering and as standalone tools to HP service customers. They are designed to send a notification only when an event or series of events has occurred that require service action. They are not intended to be real-time system state monitors that trigger with every event. Most system components have the capability of sending hundreds of state events during normal operation. SEA and OSEM are designed to filter these component events and only notify customers and/or HP Services when action needs to be taken to resolve or prevent an outage. As designed they will not report all events. Other utilities are available to monitor real time system state. The software is located on the storage server in the `c:\hpnas\components\ISEE\OSEM` and `c:\hpnas\components\ISEE\WEBES` folders.

NOTE:

This service is only available on the ML310 G3 and DL380 G4 DP Storage Servers.

HP authorized reseller

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-282-6672
- Elsewhere, see the HP web site for locations and telephone numbers: http://www.hp.com.

Helpful web sites

For product and third-party information, see the following web sites:

- http://www.hp.com
- http://www.hp.com/go/storage
- http://www.hp.com/support

- http://www.docs.hp.com
- http://www.microsoft.com

1 Overview

The HP ProLiant Data Protection Storage Server (DP Storage Server) is an HP ProLiant Storage Server preinstalled with Microsoft System Center Data Protection Manager (DPM) software and preconfigured with optimized storage settings to deliver a rapid, reliable disk-to-disk backup and recovery solution. Server platforms include the HP ProLiant DL100 G2, ML310 G3, and the DL380 G4. The DP Storage Server is offered in four configurations:

- HP ProLiant DL100 G2 1TB Data Protection Storage Server—Entry level appliance with 1 TB of internal storage, hardware RAID, and optional SCSI HBA for disk-to-disk tape implementation.
- HP ProLiant DL100 G2 3TB Data Protection Storage Server—Small-to-medium data center appliance with 3 TB of external SATA storage in a single MSA20 disk array, and optional SCSI HBA for disk-to-disk tape implementation.
- HP ProLiant DL100 G2 6TB Data Protection Storage Server—Medium data center appliance with 6 TB of external SATA storage in two MSA20 disk arrays, and optional SCSI HBA for disk-to-disk tape implementation.
- HP ProLiant ML310 G3 1TB Data Protection Storage Server—Entry level appliance with 1 TB of internal storage, hardware RAID, and optional SCSI HBA for disk-to-disk tape implementation.
- HP ProLiant DL380 G4 9TB Data Protection Storage Server—Data center or enterprise level appliance with 1.2 TB of internal SCSI storage, 8.4 TB of external SCSI in two MSA30 disk arrays, and optional SCSI or FC HBAs for disk-to-disk tape implementation.

NOTE:

All configurations run Microsoft Windows® Storage Server 2003 operating systems.

What is DP Storage Server?

DP Storage Server is a dedicated disk-to-disk backup device that enhances your current backup strategies by leveraging the functionality of Microsoft System Center Data Protection Manager (DPM). DPM automatically discovers network file servers, creates initial replications of the files on each server, captures snapshots of byte-level changes at administrator-defined

intervals, and pushes file restore/recovery functionality to network client end-users. DP Storage Server sits between the file servers and the tape library, and can store up to 64 file snapshots. Users can then restore these backups without the help of an administrator.

Benefits

DP Storage Server offers the following benefits:

- Easy implementation—DP Storage Server arrives at your site preinstalled with DPM, and preconfigured with optimized storage settings. All you do is plug the server into your MSA and run the DPM mini-setup to answer some environmental questions.
- Operational simplicity—DP Storage Server is intuitive and allows users to restore files without the help of IT. To restore a file, right-click the folder from the Microsoft dialog box or Explorer, and then use the Properties window to restore the file from previous version.
- Fast and reliable—Disk-to-disk backup is a fast, secure, and reliable medium. It offers near continuous data protection in much less time than tape backups.

Use scenarios

Depending on the needs of your business, you can configure the DP Storage Server for use in a local area network (LAN) environment or for use across a wide-area network (WAN) environment. In both cases, the DP Storage Server provides end-users with the ability to restore data across the network without the intervention of a system administrator.

The following figures show two example deployment scenarios. Figure 1 shows a typical DP Storage Server deployment in a small-to-medium business environment. In this example, the DP Storage Server (either an HP ProLiant DL100 G2, ML310 G3, or DL380 G4) provides backup services and snapshot capability for local, LAN-attached file servers.

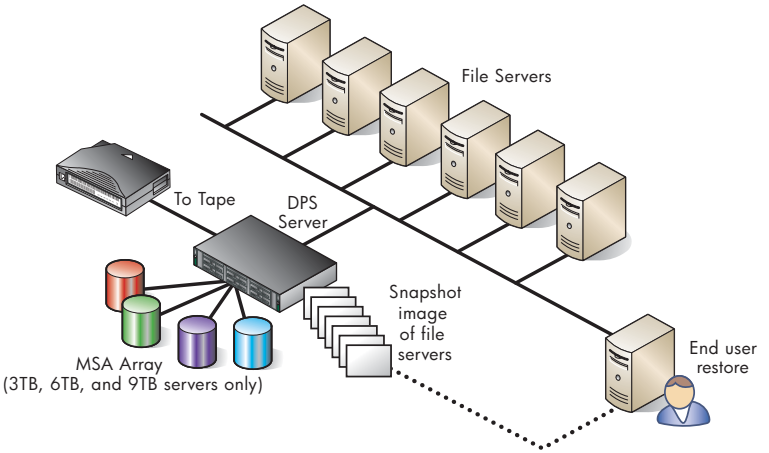


Figure 1 Small-to-medium business environment

Figure 2 shows a typical DP Storage Server deployment in a centralized branch office environment with file servers connected remotely through a WAN. Note that in this scenario the DP Storage Server could physically reside in a centralized location and take snapshots of file servers in branch offices worldwide.

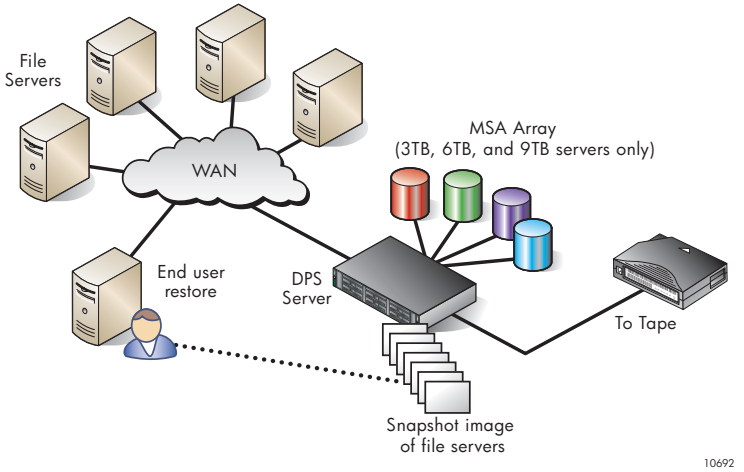


Figure 2 Centralized branch office environment

DPM end-user recovery option

The DPM end-user recovery feature allows end users to independently recover data by retrieving shadow copies of files. To use this feature, you must enable it on your DP Storage Server and on the end-user client PC. For detailed instructions on enabling the end-user recovery function, please see Microsoft DPM help.

Licenses and upgrades

This section contains information about how to register your DP Storage Server and how to obtain licenses for additional network file servers.

Registering your DP Storage Server

IMPORTANT:

If you purchased the DP Storage Server from an HP Authorized reseller, you need to register the product with HP within 10 days of purchase to receive phone-in support and software update services.

Registration information is provided by the registration letter that came with your product.

Expanding DP Storage Server to support additional file servers

Your DP Storage Server ships with a full copy of Microsoft System Center Data Protection Manager (DPM) 2006, which includes licenses to back up three network file servers. Each file server in the DPM protection group must have a valid license.

To be licensed to back up more than three file servers, you must order an additional Microsoft System Center Data Protection Management License 2006 (DPML) (p/n 403557–B21). Each DPML allows you to back up an additional server. For example, to support six additional servers, order six additional DPMLs. This would license you to support a total of nine file servers.

You can obtain additional DPMLs from your authorized HP sales channel. When you expand the DP Storage Server to support additional network file servers, keep in mind the maximum amount of data that the DP Storage Server can handle during each backup session. HP and Microsoft recommend implementing 1.5 times the available capacity on your disk-to-disk backup target; however this multiplier varies based on the rate that data changes on your network. For example, if you need to protect 1 TB of data, you will require 1.5 TB available capacity on your DP Storage Server.

NOTE:

The SATA-based DL100 G2 DP Storage Server is optimized for total configurations of less than 7 TB. If you need to back up more than 7 TB of file data, HP recommends either adding another DP Storage Server to distribute the workload or upgrading to the SCSI-based DL380 9TB DP Storage Server. SCSI-based configurations can adequately scale to 20 TB of total capacity, after which HP recommends adding another DP Storage Server to distribute the workload.

To update the file server agent licenses in the DPM interface:

1. From the DPM 2006 main window, select **Action>Update Agent**.

   The Update Agent License window opens.

Update Agent Licenses
Enter the number of Data Protection Manager File Agent licenses you have purchased for use with this Data Protection Manager installation.
DPM File Agent licenses:
3
OK
Cancel
Help

2. Change the total number of licenses.

2 DP Storage Server startup

Before beginning the startup procedures, verify that the DP Storage Server is completely installed, and that all cables and cords are connected. Also, read the supplied documentation before starting. Documents include:

- *HP ProLiant DP Storage Server installation instructions* (for your model)
- *HP ProLiant Storage Server administration guide*
- *HP ProLiant Storage Server release notes* (available at: http://www.hp.com/go/servers)

To start DP Storage Server for the first time:

- Administer the DP Storage Server, page 23
- Install the Windows Multilingual User Interface (MUI) (optional), page 25
- Prepare the DP Storage Server for DPM installation, page 26
- Run the DPM mini-setup, page 27
- Complete additional setup (optional), page 30.
- Change default storage configurations (optional), page 31

NOTE:

The WebUI is disabled until the DPM mini-setup is complete.

Administer the DP Storage Server

Use one of the following administration methods:

- Using the Remote Desktop Connection method, page 23
- Using the Direct Attach method, page 24
- Using the Integrated Lights-Out (iLO) method, page 25

Using the Remote Desktop Connection method

DP Storage Server ships with DHCP enabled on the network port. If the system is placed on a DHCP-enabled network and the serial number of the

device is known, it can be accessed through a client PC running Remote Desktop Connection software.

NOTE:

HP recommends that the client PC be on the same network segment as the DP Storage Server.

1. Connect the Ethernet cable to the network port of the DP Storage Server and the corresponding network segment.
2. Power on the DP Storage Server and wait several minutes for the server to be accessible on the network.

NOTE:

The DP Storage Server responds when the operating system has started.

3. On the client PC, open Remote Desktop Connection.
4. Enter the IP address or serial number of the DP Storage Server.

NOTE:

Substitute the server name for the serial number if a server name was previously set.

5. Enter the default user name and password to log in to the DP Storage Server.

NOTE:

The default login is *Administrator* and the password is *hpinvent*.

Using the Direct Attach method

You can access the DP Storage Server by attaching a monitor, mouse, and keyboard directly to the server.

1. Connect the Ethernet cable to the network port of the DP Storage Server and the corresponding network segment.
2. Connect the monitor, mouse, and keyboard directly to the rear panel connectors of the DP Storage Server.
3. Power on the DP Storage Server.

4. Enter the default user name and password to log in to DP Storage Server.

NOTE:

The default login is *Administrator* and the password is *hpinvent*.

Using the Integrated Lights-Out (iLO) method (ML310 G3 and DL380 D4)

You can access the DP Storage Server using the iLO port and a Web browser from a client PC.

1. Connect the Ethernet cable to the iLO port of the DP Storage Server and corresponding network segment.
2. Power on the DP Storage Server and wait several minutes for the iLO to be accessible on the network.
3. Open a Web browser on the client PC, and then enter the IP address or the name of the iLO connection.

NOTE:

The default iLO name is *iLO<serial number>*. The default user name is *Administrator*. The default password is on the tag attached to the server.

4. Use the license key supplied with the Integrated Lights-Out Advanced Pack to enable the advanced iLO features.

NOTE:

The Intelligent Platform Management Interface (IPMI) method (DL100 G2 only) is handled through the use of Server Management Software (SMS) loaded on the DL100 G2. For complete information on IPMI usage, please see the SMS help files available on the DP Storage Server.

Install the Windows Multilingual User Interface (MUI) (optional)

The latest HP ProLiant Storage Server Service Release (SR) DVD includes Microsoft Windows Multilingual User Interface (MUI) pack. The Windows MUI pack is a set of language-specific resource files that

can be added to the English version of Windows Server 2003. When installed on the English version of Windows, MUI allows the language of the operating system user interface to be changed according to the preferences of individual users. Languages included on the SR DVD are French, German, Italian, Spanish, Korean, simplified Chinese, traditional Chinese, Portuguese (Brazil), Dutch, Swedish, and Japanese. For more information about the MUI, visit the Microsoft web site: http://www.microsoft.com/globaldev/DrIntl/faqs/MUIFaq.mspx.

To install Windows MUI:

1. Review the Windows MUI *read me first* document.
2. Before configuring the storage server, insert the Service Release DVD into the DVD-ROM drive on your storage server.

   The installation should begin automatically. If the setup does not begin automatically, browse to the CD in Windows Explorer and double-click **Setup.exe**.
3. On the HP storage server service release menu, select **Install Service Release** *X.X* (where *X.X* is the version number) to start the setup wizard; then, from the Features menu, select the appropriate MUI packs and follow the instructions to install them on the system. Do not select the service release items because they are already installed on the storage server.

NOTE:

Installing Windows MUI localizes only the Windows operating system, and does not localize the NAS WebUI or NAS-unique Help files.

Prepare the DP Storage Server for DPM installation

1. Assign a host name to the server. Follow Microsoft help for assigning a host name.

   NOTE:

   DP Storage Server is shipped with DHCP enabled. If you do not want to use DHCP, enter an IP and DNS server address.
2. Join the server to the domain. Follow Microsoft help for joining a domain.
3. (Optional) Configure additional Microsoft parameters (see Table 2).

Table 2 Configuration worksheet

Part A: To be completed for DHCP and non-DHCP configurations			
Server host name:			
Part B: To be completed for non-DHCP configurations only			
DNS servers	IP address		
1			
2			
3			
Storage server NIC port*	IP address	Subnet mask	Gateway address
NIC 1			
NIC 2			
* Disable all unused ports and configure each Ethernet port (whether standard or added) to be on a separate subnet.			
Part C: SNMP information (optional)			
Trap destination (IP address) manager client:			
Management traps community string:			
System management community string:			

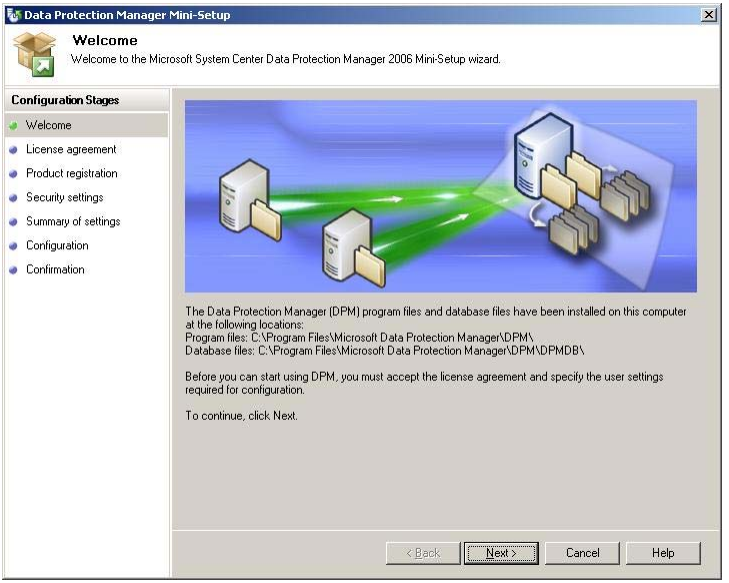
Run the DPM mini-setup

Before you begin:

- Ensure that you have the product license key from the COA card that shipped with your DP Storage Server.
- Ensure that you assigned a host name to the server and joined the server to the domain.

1. On the desktop, double-click the **Microsoft System Center Data Protection Manager 2006** icon.

   The DPM Mini-Setup Welcome window opens.


Data Protection Manager Mini-Setup
Welcome
Welcome to the Microsoft System Center Data Protection Manager 2006 Mini-Setup wizard.
Configuration Stages
Welcome
License agreement
Product registration
Security settings
Summary of settings
Configuration
Confirmation
The Data Protection Manager (DPM) program files and database files have been installed on this computer at the following locations:
Program files: C:\Program Files\Microsoft Data Protection Manager\DPM\
Database files: C:\Program Files\Microsoft Data Protection Manager\DPM\DPMDB\
Before you can start using DPM, you must accept the license agreement and specify the user settings required for configuration.
To continue, click Next.
< Back
Next >
Cancel
Help

2. Review the information and click **Next**.

   The License Agreement window opens.

3. Click **Next** to accept the terms of the license agreement.

NOTE:

This licence agreement is for the DPM software, not the DP Storage Server.

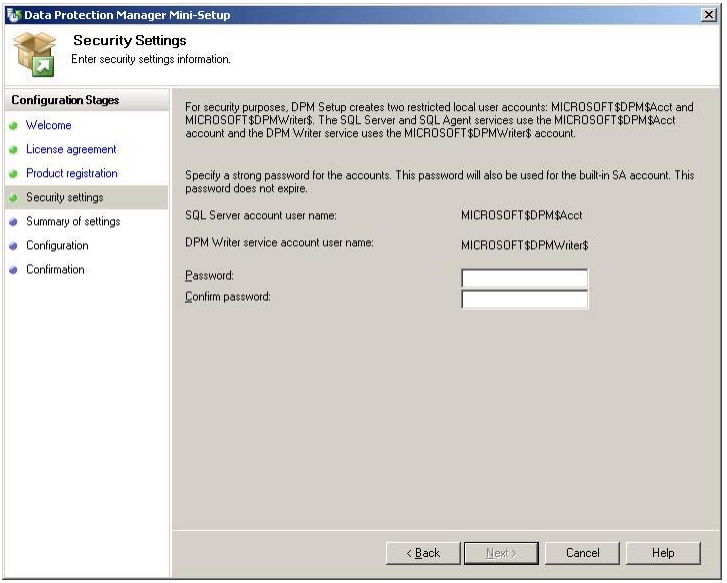
The Product Registration window opens.

4. Enter your user name, company name (required), and the product license key, and then click **Next**.

NOTE:

The license product key is the HP DP Storage Server license key on the COA card that shipped with your DP Storage Server.

The Security Settings window opens.


Data Protection Manager Mini-Setup
Security Settings
Enter security settings information.
Configuration Stages
Welcome
License agreement
Product registration
Security settings
Summary of settings
Configuration
Confirmation
For security purposes, DPM Setup creates two restricted local user accounts: MICROSOFTDPMAcct and MICROSOFT$DPMWriter$. The SQL Server and SQL Agent services use the MICROSOFTDPMAcct account and the DPM Writer service uses the MICROSOFT$DPMWriter$ account.
Specify a strong password for the accounts. This password will also be used for the built-in SA account. This password does not expire.
SQL Server account user name:
MICROSOFTDPMAcct
DPM Writer service account user name:
MICROSOFT$DPMWriter$
Password:
Confirm password:
< Back
Next >
Cancel
Help

5. Enter a SQL Server password, and then confirm it. This password must conform to the group security policy set up by your domain administrator (for example, eight characters or more).

NOTE:

This is a required field.

The Summary of Settings window opens, displaying your user name and company name.

6. Click **Configure**.

   The configuration process begins, displaying a slider bar. When finished, the Confirmation window opens, indicating that DPM has been successfully configured.

7. To start DPM, select **Open DPM 2006 Administrator Console when the Mini-Setup closes**. Then, click **Close**. DPM opens in a few moments.

IMPORTANT:

When DPM 2006 opens, a help window is displayed. Use the help information to complete the following configuration tasks:

- Configure the server.
- Install disk agents.
- Create a Protection Group.

Complete additional setup (optional)

Some computing environments require additional settings and configuration, as noted below. Most of these tasks can be completed using Microsoft capabilities and procedures. Procedures for the DPM configuration tasks can be found in the *Microsoft DPM Planning and Deployment Guide*.

1. Adjust logging for system, application, and security events.
2. Install additional third-party software, such as backup, anti-virus, or monitoring agents.

NOTE:

HP StorageWorks Library and Tape Tools (L&TT) installer software is located on the DP Storage Server in the `c:\hpnas\components\tapetools` folder. For more information about this product, go to: http://www.hp.com/support/tapetools.

3. Create and verify a full server system backup before putting the system into production.

NOTE:

HP highly recommends that you run Microsoft Windows Update to identify, review, and install the latest, applicable, critical security updates on the DP Storage Server. For recommendations, instructions, and documentation to help manage software updates, hotfix, and security patches process on the server, see *Microsoft Software Updates on HP ProLiant Storage Servers* at: http://h18006.www1.hp.com/storage/storageservers.html.

Change default storage configurations (optional)

NOTE:

This information applies only to the 3TB, 6TB, and 9TB servers.

If you are an experienced storage administrator, you can use the HP Array Configuration Utility (ACU) to change the storage configuration of your DP Storage Server.

CAUTION:

The DP Storage Server is preconfigured by HP for optimum storage management. Do not attempt further array configuration unless you are an experienced storage administrator and are familiar with storage management tasks, such as adding disks and configuring RAID levels. If you change the array configuration, keep the following in mind:

- When you add a disk into DPM, all previous data is deleted.
- *Do not* reconfigure the DON'T ERASE partition.

3 Default storage configurations

The DP Storage Server is preconfigured with optimized storage settings and preinstalled with the operating system (OS). This chapter provides additional details about the preconfigured storage configurations for the following DP Storage Server platforms:

- Storage for DL100 G2 DP Storage Servers, page 33
- Storage for DL310 G3 DP Storage Servers, page 37
- Storage for DL380 G4 DP Storage Servers, page 38

Storage for DL100 G2 DP Storage Servers

Storage is preconfigured for each of the HP ProLiant DL100 G2 DP Storage Server models:

- DL100 G2 1TB DP Storage Server (preconfigured for internal storage)
- DL100 G2 3TB DP Storage Server (preconfigured for single MSA20 storage array)
- DL100 G2 6TB DP Storage Server (preconfigured for two MSA20 storage arrays)

The 1TB model is configured prior to shipment from the factory. No additional storage configuration is needed. The 1TB model *can* be reconfigured using the Adaptec Array Storage Manager (ASM) utility. The Adaptec ASM user guide is available for download at the following Adaptec web site: http://download.adaptec.com/pdfs/user_guides/aar2410Sa_iug.pdf

The 3TB and 6TB models are configured prior to shipment from the factory. No additional storage configuration is needed. The 3TB and 6TB models *can* be reconfigured using the HP Array Configuration Utility (ACU). The ACU user guide is available for download at the following HP web site: http://h200002.www2.hp.com/bc/docs/support/SupportManual/c00294139/c00294139.pdf .

Physical configurations

Depending on the model, each DL100 G2 DP Storage Server comes with either two or four Serial Advanced Technology Attachment (SATA) hard disk drives (HDDs) and /or an additional external MSA20 storage enclosure:

DL100 G2 model	Internal HDD	External HDD
1TB	4	0
3TB	2	12 (in one MSA20)
6TB	2	24 (in two MSA20)

The following sections describe how these HDDs are configured for each DP Storage Server based on whether two or four HDDs are installed.

Four-HDD configurations

The four HDDs included with the DL100 G2 DP Storage Server (1TB model) are configured for hardware RAID fault tolerance using the Adaptec RAID controller. The HDDs are hot-pluggable and hot-swappable. The drives can be removed and installed with the power on; the Adaptec controller determines whether a rebuild of a drive is necessary.

The DL100 G2 DP Storage Server (four-HDD) uses Microsoft Disk Manager (DM) for managing the logical drives presented to the file system. The DL100 G2 DP Storage Server (four-HDD) uses all three logical drives as presented to it from the physical storage layer. The first two logical drives are used for housing the OS and DON'T ERASE basic partitions. The third logical drive houses the data volume to be added into the DPM administration console on a basic partition.

Table 3 DL100 G2 1TB DP Storage Server (four-HDD) internal drive configurations

Logical drive	RAID level	Size/allocation	Purpose
1	RAID 5	12 GB across physical drives 0, 1, 2, 3.	OS
2	RAID 5	5 GB across physical drives 0, 1, 2, 3.	DON'T ERASE
3	RAID 5	Remaining space across all physical drives.	Data

NOTE:

In Adaptec Storage Manager (ASM), logical drives are labeled 1, 2, and so on. In Microsoft Disk Manager, logical drives are displayed as 0, 1, and so on.

NOTE:

The DON'T ERASE logical drive supports the Quick Restore process only and does not host the secondary operating system. If you need to perform a Quick Restore of your server, see the Quick Restore instructions on the Quick Restore DVD. Be sure to back up your user data, and then use the Quick Restore DVD to restore the server to the factory default state.

Two-HDD configurations

Internal storage drives

The two HDDs included with the DL100 G2 DP Storage Server (3TB and 6TB models) are configured for software RAID fault tolerance using the motherboard SATA controller. The HDDs are hot-pluggable, but not hot-swappable. The drives can be removed or inserted while the power is on, but user intervention is needed to rebuild the logical drives.

The DL100 G2 DP Storage Server (two-HDD) uses Microsoft Disk Manager (DM) to present the 160 GB HDDs to the system as dynamic disks. The server uses two logical drives as presented to it from the physical storage layer for the primary and secondary OS basic partitions. Additional internal disk space is available but cannot be allocated to DPM due to residing on the same physical disks as the OS.

Table 4 DL100 G2 3TB and 6TB DP Storage Server (two-HDD) internal drive configurations

Logical drive	RAID level	Size/allocation	Purpose
1	RAID 1	12 GB across physical drives 0,1.	Primary OS
2	RAID 1	12 GB across physical drives 0,1.	Secondary OS

When the primary OS has a failure, such as system files becoming corrupted, registry corrupted, or the system hangs during boot, the system should be run from the secondary OS. To run the system from the secondary OS:

1. Power down the unit.
2. Connect a monitor, keyboard, and mouse directly to the rear of the unit.
3. Power on the unit.
4. During boot up, select to use the secondary partition.

Be sure to back up your user data, and then use the Quick Restore DVD to restore the server to the factory default state as soon as conveniently possible.

External storage drives

The MSA20 drives for the DL100 G2 3TB and 6TB are configured for hardware RAID fault tolerance using the HP Smart Array 6402 RAID Controller. The HDDs are hot-pluggable and hot-swappable.

The logical drives are configured as RAID 5 volumes, and partitioned with two RAID 5 logical partitions. A total of two or four RAID 5 backup data partitions are available for the DPM software, depending on the model.

Table 5 DL100 G2 3TB DP Storage Server (two-HDD) 1–MSA20 drive configurations

Logical drive	RAID level	Size/allocation	Purpose
Array A			
1	RAID 5	2 TB across the array.	Backup data
2	RAID 5	Remaining space across the array.	Backup data
[1]			

[1]For each array, one hot spare drive is available.

Table 6 DL100 G2 6TB DP Storage Server (two-HDD) 2–MSA20 drive configurations

Logical drive	RAID level	Size/allocation	Purpose
Array A			
1	RAID 5	2 TB across the array.	Backup data
2	RAID 5	Remaining space across the array.	Backup data
Array B			
1	RAID 5	2 TB across the array.	Backup data
2	RAID 5	Remaining space across the array.	Backup data

[1]

[1]For each array, one hot spare drive is available.

Storage for ML310 G3 DP Storage Servers

Storage is preconfigured for the ML310 G3 1TB DP Storage Server prior to shipment from the factory. No additional storage configuration is needed. The 1TB model *can* be reconfigured using the HP Storage Manager utility.

Physical configuration

The four hard drives included with the ML310 G3 DP Storage Server are configured for hardware RAID fault tolerance using the RAID Array HP 6-Port SATA RAID Controller. The HDDs are hot-pluggable and hot-swappable. The drives can be removed and installed with the power on. The controller determines whether a rebuild of the drive is necessary.

The ML310 G3 DP Storage Server uses Microsoft Disk Manager (DM) for managing the logical drives presented to the file system. The DP Storage Server uses all three logical partitions as presented to it from the physical storage layer. The first two logical drives are used for housing the OS and DON'T ERASE basic partitions. The third logical drive houses the data volume to be added into the DPM administrative console on a basic partition.

Table 7 ML310 G3 1TB DP Storage Server internal drive configuration

Logical drive	RAID level	Size/allocation	Purpose
1	RAID 5	12 GB across physical drives 0,1, 2, 3.	OS
2	RAID 5	5 GB across physical drives 0,1, 2, 3.	DON'T ERASE
3	RAID 5	Remaining space across the array.	Backup data

NOTE:

With HP Storage Manager, logical disks are labeled 1, 2, and so on. In Disk Manager, logical disks are displayed as 0, 1, and so on. Information about HP Storage Manager can be obtained from http://h200005.www2.hp.com/bc/docs/support/SupportManual/c00405440/c00405440.pdf.

NOTE:

The DON'T ERASE logical drive supports the Quick Restore process only and does not host the secondary operating system. If you need to perform a Quick Restore of your server, see the Quick Restore instructions inside the Quick Restore DVD. Be sure to back up your user data, and then use the Quick Restore DVD to restore the server to the factory default state.

Storage for DL380 G4 DP Storage Servers

Storage is preconfigured for the DL380 G4 9TB DP Storage Server (preconfigured for two MSA30 storage enclosures).

The 9TB model is configured prior to shipment from the factory. No additional storage configuration to either the internal or external drives is needed. The 9TB model *can* be reconfigured using the HP Array Configuration Utility (ACU). The ACU user guide is available for download at the following HP web site: http://h200002.www2.hp.com/bc/docs/support/SupportManual/c00294139/c00294139.pdf .

Physical configurations

Internal storage drives

The two hard drives included with the DL380 G4 DP Storage Server are configured for hardware RAID fault tolerance using the HP Smart Array 6i RAID Controller. The HDDs are hot-pluggable and hot-swappable. The drives are configured by default into two logical drives at the controller level.

The DL380 G4 DP Storage Server uses Microsoft Disk Manager (DM) to present the 36 GB HDDs to the system as basic disks. The server uses two logical drives as presented to it from the physical storage layer for the OS and DON'T ERASE basic partitions. The internal DL380 G4 drives are configured in a single RAID 5 partition. The non-OS logical drives are used by DPM and should not be configured using DM.

Table 8 DL380 G4 9TB DP Storage Server internal drive configurations

Logical drive	RAID level	Size/allocation	Purpose
Array A			
1	RAID 1	27 GB across physical drives 0,1.	OS
2	RAID 1	7 GB across physical drives 0,1.	DON'T ERASE
Array B			
1	RAID 5	Remaining space across the array.	Backup data

NOTE:

In the HP ACU, logical drives are labeled 1 and 2. In Microsoft Disk Manager, logical drives are displayed as 0 and 1.

NOTE:

The DON'T ERASE logical drive supports the Quick Restore process only and does not host the secondary operating system. If you need to perform a Quick Restore of your server, see the Quick Restore instructions inside the Quick Restore DVD. Be sure to back up your user data, and then use the Quick Restore DVD to restore the server to the factory default state.

External storage drives

The two MSA30 storage enclosures for the DL380 G4 9TB are configured for hardware RAID fault tolerance using the HP Smart Array 6402 RAID Controller. The HDDs are hot-pluggable and hot-swappable.

The logical drives are configured as RAID 5 volumes, and partitioned with four RAID 5 logical partitions. A total of four RAID 5 backup data partitions, plus one internal, are available for the DPM software.

Table 9 DL380 G4 DP Storage Server 9TB two–MSA30 configurations

Logical drive	RAID level	Size/allocation	Purpose
Array A			
1	RAID 5	2 TB across the array.	Backup data
2	RAID 5	Remaining space across the array.	Backup data
Array B			
1	RAID 5	2 TB across the array.	Backup data
2	RAID 5	Remaining space across the array.	Backup data

[1]

[1]For each array, a hot spare is available.

Default boot sequence

The BIOS supports the following default boot sequence:

1. DVD-ROM.
2. HDD order as follows:
   - HDD 0, 1 (for two-HDD storage servers, DL380 G4)
   - HDD 0, 1, 2 (for four-HDD storage servers)
3. PXE (network boot)

Under normal circumstances, the DPS Servers boot up from the primary OS logical drive.

- If the system experiences a drive failure, the drive displays a amber disk failure LED.
- If a single drive failure occurs, it is transparent to the OS.

A Regulatory compliance and safety

Federal Communications Commission notice

Part 15 of the Federal Communications Commission (FCC) Rules and Regulations has established Radio Frequency (RF) emission limits to provide an interference-free radio frequency spectrum. Many electronic devices, including computers, generate RF energy incidental to their intended function and are, therefore, covered by these rules. These rules place computers and related peripheral devices into two classes, A and B, depending upon their intended installation. Class A devices are those that may reasonably be expected to be installed in a business or commercial environment. Class B devices are those that may reasonably be expected to be installed in a residential environment (personal computers, for example). The FCC requires devices in both classes to bear a label indicating the interference potential of the device as well as additional operating instructions for the user.

The rating label on the device shows which class (A or B) the equipment falls into. Class B devices have an FCC logo or FCC ID on the label. Class A devices do not have an FCC logo or FCC ID on the label. Once the class of the device is determined, refer to the following corresponding statement.

Class A equipment

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at personal expense.

Class B equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful

interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Declaration of conformity for products marked with the FCC logo, United States only

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions regarding your product, contact:

Hewlett-Packard Company

P. O. Box 692000, Mail Stop 530113

Houston, Texas 77269-2000

Or, call

1-800- 652-6672

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company

P. O. Box 692000, Mail Stop 510101

Houston, Texas 77269-2000

Or, call

(281) 514-3333

To identify this product, refer to the Part, Series, or Model number found on the product.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Laser compliance

This product may be provided with an optical storage device (that is, CD or DVD drive) and/or fiber optic transceiver. Each of these devices contain a laser that is classified as a Class 1 Laser Product in accordance with US FDA regulations and the IEC 60826–1. The product does not emit hazardous laser radiation.

⚠ **WARNING!**

Use of controls or adjustments, or performance of procedures other than those specified herein, or in the laser product's installation guide, may result in hazardous radiation exposure. To reduce the risk of exposure to hazardous radiation:

- Do not try to open the module enclosure. There are no user-serviceable components inside.
- Do not operate controls, make adjustments, or perform procedures to the laser device, other than those specified herein.
- Allow only HP Authorized Service technicians to repair the unit.

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured from August 1 1976. Compliance is mandatory for products marketed in the United States.

International notices and statements

Canadian notice (Avis Canadien)

Class A equipment

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Class B equipment

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union notice

CE Products bearing the CE marking comply with the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community and if this product has telecommunication functionality, the R&TTE Directive (1999/5/EC).

Compliance with these directives implies conformity to the following European Norms (in parentheses are the equivalent international standards and regulations):

- EN 55022 (CISPR 22) - Electromagnetic Interference
- EN55024 (IEC61000-4-2, 3, 4, 5, 6, 8, 11) - Electromagnetic Immunity
- EN61000-3-2 (IEC61000-3-2) - Power Line Harmonics
- EN61000-3-3 (IEC61000-3-3) - Power Line Flicker
- EN 60950 (IEC 60950) - Product Safety

BSMI notice

警告使用者:
這是甲類的資訊產品，在居住的
環境中使用時，可能會造成射頻
干擾，在這種情況下，使用者會
被要求採取某些適當的對策。

Japanese notice

ご使用になっている装置にVCCIマークが付いていましたら、次の説明文をお読み下さい。

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

VCCIマークが付いていない場合には、次の点にご注意下さい。

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です　この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Korean notice (A&B)

Class A equipment

A급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

Class B equipment

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Safety

Battery Replacement notice

⚠ **WARNING!**

The computer contains an internal lithium manganese dioxide, a vanadium pentoxide, or an alkaline battery pack. A risk of fire and burns exists if the battery pack is not properly handled. To reduce the risk of personal injury:

- Do not attempt to recharge the battery.
- Do not expose the battery to temperatures higher than 60°C (140°F).
- Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.

Batteries, battery packs, and accumulators should not be disposed of together with the general household waste. To forward them to recycling or proper disposal, please use the public collection system or return them to HP, an authorized HP Partner, or their agents.

For more information about battery replacement or proper disposal, contact an authorized reseller or an authorized service provider.

Taiwan Battery Recycling Notice

The Taiwan EPA requires dry battery manufacturing or importing firms in accordance with Article 15 of the Waste Disposal Act to indicate the recovery marks on the batteries used in sales, giveaway or promotion. Contact a qualified Taiwanese recycler for proper battery disposal.

Power cords

The power cord set must meet the requirements for use in the country where the product was purchased. If the product is to be used in another country, purchase a power cord that is approved for use in that country.

The power cord must be rated for the product and for the voltage and current marked on the product electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product. In addition, the diameter of the wire must be a minimum of 1.00 mm2 or 18 AWG, and the length of the cord must be between 1.8 m (6 ft) and 3.6 m (12 ft). If you have questions about the type of power cord to use, contact an HP authorized service provider.

NOTE:

Route power cords so that they will not be walked on and cannot be pinched by items placed upon or against them. Pay particular attention to the plug, electrical outlet, and the point where the cords exit from the product.

Japanese Power Cord notice

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

Electrostatic discharge

To prevent damage to the system, be aware of the precautions you need to follow when setting up the system or handling parts. A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the device.

To prevent electrostatic damage, observe the following precautions:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.

- Always be properly grounded when touching a static-sensitive component or assembly.

Preventing electrostatic discharge

To prevent electrostatic damage, observe the following precautions:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly.

Grounding methods

There are several methods for grounding. Use one or more of the following methods when handling or installing electrostatic-sensitive parts:

- Use a wrist strap connected by a ground cord to a grounded workstation or computer chassis. Wrist straps are flexible straps with a minimum of 1 megohm ± 10 percent resistance in the ground cords. To provide proper grounding, wear the strap snug against the skin.
- Use heel straps, toe straps, or boot straps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
- Use conductive field service tools.
- Use a portable field service kit with a folding static-dissipating work mat.

If you do not have any of the suggested equipment for proper grounding, have an authorized reseller install the part.

NOTE:

For more information on static electricity, or for assistance with product installation, contact your authorized reseller.

Waste Electrical and Electronic Equipment directive

Czechoslovakian notice

Likvidace zařízení soukromými domácími uživateli v Evropské unii

Tento symbol na produktu nebo balení označuje výrobek, který nesmí být vyhozen spolu s ostatním domácím odpadem. Povinností uživatele je předat takto označený odpad na předem určené sběrné místo pro recyklaci elektrických a elektronických zařízení. Okamžité třídění a recyklace odpadu pomůže uchovat přírodní prostředí a zajistí takový způsob recyklace, který ochrání zdraví a životní prostředí člověka. Další informace o možnostech odevzdání odpadu k recyklaci získáte na příslušném obecním nebo městském úřadě, od firmy zabývající se sběrem a svozem odpadu nebo v obchodě, kde jste produkt zakoupili.

Danish notice

Bortskaffelse af affald fra husstande i den Europæiske Union

Hvis produktet eller dets emballage er forsynet med dette symbol, angiver det, at produktet ikke må bortskaffes med andet almindeligt husholdningsaffald. I stedet er det dit ansvar at bortskaffe kasseret udstyr ved at aflevere det på den kommunale genbrugsstation, der forestår genvinding af kasseret elektrisk og elektronisk udstyr. Den centrale modtagelse og genvinding af kasseret udstyr i forbindelse med bortskaffelsen bidrager til bevarelse af naturlige ressourcer og sikrer, at udstyret genvindes på en måde, der beskytter både mennesker og miljø. Yderligere oplysninger om, hvor du kan aflevere kasseret udstyr til genvinding, kan du få hos kommunen, den lokale genbrugsstation eller i den butik, hvor du købte produktet.

Dutch notice

Verwijdering van afgedankte apparatuur door privé-gebruikers in de Europese Unie

Dit symbool op het product of de verpakking geeft aan dat dit product niet mag worden gedeponeerd bij het normale huishoudelijke afval. U bent zelf verantwoordelijk voor het inleveren van uw afgedankte apparatuur bij een inzamelingspunt voor het recyclen van oude elektrische en elektronische apparatuur. Door uw oude apparatuur apart aan te bieden en te recyclen, kunnen natuurlijke bronnen worden behouden en kan het materiaal worden hergebruikt op een manier waarmee de volksgezondheid en het milieu worden beschermd. Neem contact op met uw gemeente, het afvalinzamelingsbedrijf of de winkel waar u het product hebt gekocht voor meer informatie over inzamelingspunten waar u oude apparatuur kunt aanbieden voor recycling.

English notice

Disposal of waste equipment by users in private household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service, or the shop where you purchased the product.

Estonian notice

Seadmete jäätmete kõrvaldamine eramajapidamistes Euroopa Liidus

See tootel või selle pakendil olev sümbol näitab, et kõnealust toodet ei tohi koos teiste majapidamisjäätmetega kõrvaldada. Teie kohus on oma seadmete jäätmed kõrvaldada, viies need elektri- ja elektroonikaseadmete jäätmete ringlussevõtmiseks selleks ettenähtud kogumispunkti. Seadmete jäätmete eraldi kogumine ja ringlussevõtmine kõrvaldamise ajal aitab

kaitsta loodusvarasid ning tagada, et ringlussevõtmine toimub viisil, mis kaitseb inimeste tervist ning keskkonda. Lisateabe saamiseks selle kohta, kuhu oma seadmete jäätmed ringlussevõtmiseks viia, võtke palun ühendust oma kohaliku linnakantselei, majapidamisjäätmete kõrvaldamise teenistuse või kauplusega, kust Te toote ostsite.

Finnish notice

Laitteiden hävittäminen kotitalouksissa Euroopan unionin alueella

Jos tuotteessa tai sen pakkauksessa on tämä merkki, tuotetta ei saa hävittää kotitalousjätteiden mukana. Tällöin hävitettävä laite on toimitettava sähkölaitteiden ja elektronisten laitteiden kierrätyspisteeseen. Hävitettävien laitteiden erillinen käsittely ja kierrätys auttavat säästämään luonnonvaroja ja varmistamaan, että laite kierrätetään tavalla, joka estää terveyshaitat ja suojelee luontoa. Lisätietoja paikoista, joihin hävitettävät laitteet voi toimittaa kierrätettäväksi, saa ottamalla yhteyttä jätehuoltoon tai liikkeeseen, josta tuote on ostettu.

French notice

Élimination des appareils mis au rebut par les ménages dans l'Union européenne

Le symbole apposé sur ce produit ou sur son emballage indique que ce produit ne doit pas être jeté avec les déchets ménagers ordinaires. Il est de votre responsabilité de mettre au rebut vos appareils en les déposant dans les centres de collecte publique désignés pour le recyclage des équipements électriques et électroniques. La collecte et le recyclage de vos appareils mis au rebut indépendamment du reste des déchets contribue à la préservation des ressources naturelles et garantit que ces appareils seront recyclés dans le respect de la santé humaine et de l'environnement. Pour obtenir plus d'informations sur les centres de collecte et de recyclage des appareils mis au rebut, veuillez contacter les autorités locales de votre région, les services de collecte des ordures ménagères ou le magasin dans lequel vous avez acheté ce produit.

German notice

Entsorgung von Altgeräten aus privaten Haushalten in der EU

Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass das Produkt nicht über den normalen Hausmüll entsorgt werden darf. Benutzer sind verpflichtet, die Altgeräte an einer Rücknahmestelle für Elektro- und Elektronik-Altgeräte abzugeben. Die getrennte Sammlung und ordnungsgemäße Entsorgung Ihrer Altgeräte trägt zur Erhaltung der natürlichen Ressourcen bei und garantiert eine Wiederverwertung, die die Gesundheit des Menschen und die Umwelt schützt. Informationen dazu, wo Sie Rücknahmestellen für Ihre Altgeräte finden, erhalten Sie bei Ihrer Stadtverwaltung, den örtlichen Müllentsorgungsbetrieben oder im Geschäft, in dem Sie das Gerät erworben haben.

Greek notice

Απόρριψη άχρηστου εξοπλισμού από χρήστες σε ιδιωτικά νοικοκυριά στην Ευρωπαϊκή Ένωση

Το σύμβολο αυτό στο προϊόν ή τη συσκευασία του υποδεικνύει ότι το συγκεκριμένο προϊόν δεν πρέπει να διατίθεται μαζί με τα άλλα οικιακά σας απορρίμματα. Αντίθετα, είναι δική σας ευθύνη να απορρίψετε τον άχρηστο εξοπλισμό σας παραδίδοντάς τον σε καθορισμένο σημείο συλλογής για την ανακύκλωση άχρηστου ηλεκτρικού και ηλεκτρονικού εξοπλισμού. Η ξεχωριστή συλλογή και ανακύκλωση του άχρηστου εξοπλισμού σας κατά την απόρριψη θα συμβάλει στη διατήρηση των φυσικών πόρων και θα διασφαλίσει ότι η ανακύκλωση γίνεται με τρόπο που προστατεύει την ανθρώπινη υγεία και το περιβάλλον. Για περισσότερες πληροφορίες σχετικά με το πού μπορείτε να παραδώσετε τον άχρηστο εξοπλισμό σας για ανακύκλωση, επικοινωνήστε με το αρμόδιο τοπικό γραφείο, την τοπική υπηρεσία διάθεσης οικιακών απορριμμάτων ή το κατάστημα όπου αγοράσατε το προϊόν.

Hungarian notice

Készülékek magánháztartásban történő selejtezése az Európai Unió területén

A készüléken, illetve a készülék csomagolásán látható azonos szimbólum annak jelzésére szolgál, hogy a készülék a selejtezés során az egyéb háztartási hulladéktól eltérő módon kezelendő. A vásárló

a hulladékká vált készüléket köteles a kijelölt gyűjtőhelyre szállítani az elektromos és elektronikai készülékek újrahasznosítása céljából. A hulladékká vált készülékek selejtezéskori begyűjtése és újrahasznosítása hozzájárul a természeti erőforrások megőrzéséhez, valamint biztosítja a selejtezett termékek környezetre és emberi egészségre nézve biztonságos feldolgozását. A begyűjtés pontos helyéről bővebb tájékoztatást a lakhelye szerint illetékes önkormányzattól, az illetékes szemételtakarító vállalattól, illetve a terméket elárusító helyen kaphat.

Italian notice

Smaltimento delle apparecchiature da parte di privati nel territorio dell'Unione Europea

Questo simbolo presente sul prodotto o sulla sua confezione indica che il prodotto non può essere smaltito insieme ai rifiuti domestici. È responsabilità dell'utente smaltire le apparecchiature consegnandole presso un punto di raccolta designato al riciclo e allo smaltimento di apparecchiature elettriche ed elettroniche. La raccolta differenziata e il corretto riciclo delle apparecchiature da smaltire permette di proteggere la salute degli individui e l'ecosistema. Per ulteriori informazioni relative ai punti di raccolta delle apparecchiature, contattare l'ente locale per lo smaltimento dei rifiuti, oppure il negozio presso il quale è stato acquistato il prodotto.

Latvian notice

Nolietotu iekārtu iznīcināšanas noteikumi lietotājiem Eiropas Savienības privātajās mājsaimniecībās

Šāds simbols uz izstrādājuma vai uz tā iesaiņojuma norāda, ka šo izstrādājumu nedrīkst izmest kopā ar citiem sadzīves atkritumiem. Jūs atbildat par to, lai nolietotās iekārtas tiktu nodotas speciāli iekārtotos punktos, kas paredzēti izmantoto elektrisko un elektronisko iekārtu savākšanai otrreizējai pārstrādei. Atsevišķa nolietoto iekārtu savākšana un otrreizējā pārstrāde palīdzēs saglabāt dabas resursus un garantēs, ka šīs iekārtas tiks otrreizēji pārstrādātas tādā veidā, lai pasargātu vidi un cilvēku veselību. Lai uzzinātu, kur nolietotās iekārtas var izmest otrreizējai pārstrādei, jāvēršas savas dzīves vietas pašvaldībā, sadzīves atkritumu savākšanas dienestā vai veikalā, kurā izstrādājums tika nopirkts.

Lithuanian notice

Vartotojų iš privačių namų ūkių įrangos atliekų šalinimas Europos Sąjungoje

Šis simbolis ant gaminio arba jo pakuotės rodo, kad šio gaminio šalinti kartu su kitomis namų ūkio atliekomis negalima. Šalintinas įrangos atliekas privalote pristatyti į specialią surinkimo vietą elektros ir elektroninės įrangos atliekoms perdirbti. Atskirai surenkamos ir perdirbamos šalintinos įrangos atliekos padės saugoti gamtinius išteklius ir užtikrinti, kad jos bus perdirbtos tokiu būdu, kuris nekenkia žmonių sveikatai ir aplinkai. Jeigu norite sužinoti daugiau apie tai, kur galima pristatyti perdirbtinas įrangos atliekas, kreipkitės į savo seniūniją, namų ūkio atliekų šalinimo tarnybą arba parduotuvę, kurioje įsigijote gaminį.

Polish notice

Pozbywanie się zużytego sprzętu przez użytkowników w prywatnych gospodarstwach domowych w Unii Europejskiej

Ten symbol na produkcie lub jego opakowaniu oznacza, że produktu nie wolno wyrzucać do zwykłych pojemników na śmieci. Obowiązkiem użytkownika jest przekazanie zużytego sprzętu do wyznaczonego punktu zbiórki w celu recyklingu odpadów powstałych ze sprzętu elektrycznego i elektronicznego. Osobna zbiórka oraz recykling zużytego sprzętu pomogą w ochronie zasobów naturalnych i zapewnią ponowne wprowadzenie go do obiegu w sposób chroniący zdrowie człowieka i środowisko. Aby uzyskać więcej informacji o tym, gdzie można przekazać zużyty sprzęt do recyklingu, należy się skontaktować z urzędem miasta, zakładem gospodarki odpadami lub sklepem, w którym zakupiono produkt.

Portuguese notice

Descarte de Lixo Elétrico na Comunidade Européia

Este símbolo encontrado no produto ou na embalagem indica que o produto não deve ser descartado no lixo doméstico comum. É responsabilidade do cliente descartar o material usado (lixo elétrico), encaminhando-o para um ponto de coleta para reciclagem. A coleta e a reciclagem seletivas desse tipo de lixo ajudarão a conservar as reservas naturais; sendo assim, a reciclagem será feita de uma forma segura, protegendo o ambiente e a saúde das pessoas. Para obter mais informações sobre locais que reciclam esse tipo de material, entre em contato com o escritório da HP em sua cidade, com o serviço de coleta de lixo ou com a loja em que o produto foi adquirido.

Slovakian notice

Likvidácia vyradených zariadení v domácnostiach v Európskej únii

Symbol na výrobku alebo jeho balení označuje, že daný výrobok sa nesmie likvidovať s domovým odpadom. Povinnosťou spotrebiteľa je odovzdať vyradené zariadenie v zbernom mieste, ktoré je určené na recykláciu vyradených elektrických a elektronických zariadení. Separovaný zber a recyklácia vyradených zariadení prispieva k ochrane prírodných zdrojov a zabezpečuje, že recyklácia sa vykonáva spôsobom chrániacim ľudské zdravie a životné prostredie. Informácie o zberných miestach na recykláciu vyradených zariadení vám poskytne miestne zastupiteľstvo, spoločnosť zabezpečujúca odvoz domového odpadu alebo obchod, v ktorom ste si výrobok zakúpili.

Slovenian notice

Odstranjevanje odslužene opreme uporabnikov v zasebnih gospodinjstvih v Evropski uniji

Ta znak na izdelku ali njegovi embalaži pomeni, da izdelka ne smete odvreči med gospodinjske odpadke. Nasprotno, odsluženo opremo morate predati na zbirališče, pooblaščeno za recikliranje odslužene električne in elektronske opreme. Ločeno zbiranje in recikliranje odslužene opreme prispeva k ohranjanju naravnih virov in zagotavlja recikliranje te opreme na zdravju in okolju neškodljiv način. Za podrobnejše informacije

o tem, kam lahko odpeljete odsluženo opremo na recikliranje, se obrnite na pristojni organ, komunalno službo ali trgovino, kjer ste izdelek kupili.

Spanish notice

Eliminación de residuos de equipos eléctricos y electrónicos por parte de usuarios particulares en la Unión Europea

Este símbolo en el producto o en su envase indica que no debe eliminarse junto con los desperdicios generales de la casa. Es responsabilidad del usuario eliminar los residuos de este tipo depositándolos en un "punto limpio" para el reciclado de residuos eléctricos y electrónicos. La recogida y el reciclado selectivos de los residuos de aparatos eléctricos en el momento de su eliminación contribuirá a conservar los recursos naturales y a garantizar el reciclado de estos residuos de forma que se proteja el medio ambiente y la salud. Para obtener más información sobre los puntos de recogida de residuos eléctricos y electrónicos para reciclado, póngase en contacto con su ayuntamiento, con el servicio de eliminación de residuos domésticos o con el establecimiento en el que adquirió el producto.

Swedish notice

Bortskaffande av avfallsprodukter från användare i privathushåll inom Europeiska Unionen

Om den här symbolen visas på produkten eller förpackningen betyder det att produkten inte får slängas på samma ställe som hushållssopor. I stället är det ditt ansvar att bortskaffa avfallet genom att överlämna det till ett uppsamlingsställe avsett för återvinning av avfall från elektriska och elektroniska produkter. Separat insamling och återvinning av avfallet hjälper till att spara på våra naturresurser och gör att avfallet återvinns på ett sätt som skyddar människors hälsa och miljön. Kontakta ditt lokala kommunkontor, din närmsta återvinningsstation för hushållsavfall eller affären där du köpte produkten för att få mer information om var du kan lämna ditt avfall för återvinning.

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